

State of North Dakota
Capacity Development Program Report
to

Governor John Hoeven

Division of Municipal Facilities (DMF)
Environmental Health Section
North Dakota Department of Health (Department)
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Introduction

The Department is required to report the efficacy and progress of the North Dakota Capacity Development Program to the Governor in order to avoid withholding of twenty-percent (20%) funding from the federal fiscal year 2006 (FY06) Drinking Water State Revolving Loan Fund (DWSRF). This second-round triennial report is mandated, under section 1420 (c) of the Safe Drinking Water Act (SDWA), and must be submitted no later than September 30, 2005.

New System Strategy

All new North Dakota community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) are required to demonstrate technical, managerial, and financial capability (capacity) prior to commencing operation. CWSs are public water systems (PWSs) that serve year-round residents such as municipalities, rural water systems, subdivisions, and mobile home parks. NTNCWSs are PWSs that serve the same persons a minimum of six months per year such as rural schools, power plants, and industrial parks. New system guidelines are outlined in the New Water System Capacity Assessment Manual and the New System Capacity Assurance Plan. North Dakota's new system strategy was approved by the U.S. Environmental Protection Agency (EPA) in September 1999. The Department was granted the authority to ensure new system capacity under North Dakota Century Code (NDCC) Chapter 61-28.1, Safe Drinking Water Act, by the 55th Legislative Assembly in 1997. The Department provided EPA North Dakota's Attorney General's written opinion certifying the Department's authority to ensure that all new CWSs/NTNCWSs commencing operation after October 1, 1999, demonstrate capacity with respect to SDWA regulations, or regulations likely to be in effect, on the date operation commences.

Pursuant to NDCC 61-28.1, the Department adopted North Dakota Administrative Code (NDAC) Article 33-17, Public Water Supply Systems. These existing regulations, originally adopted in 1977 and last amended in 2005, provide a means to implement a capacity assurance program. Based on such authority, proposed new PWSs must provide a number of assurances as part of the plans and specification approval process.

The Department requires that plans and specifications be submitted, for review and approval prior to construction and that operation not commence until a Letter of Approval is issued. These primary control points allow the Department to ensure the capacity of new systems prior to their development. To obtain a Letter of Approval, the PWS must provide:

- A new water system application;
- An operation plan that includes a technical, managerial, and financial plan;
- Plans and specifications;
- A construction schedule;
- Sample results for each water source;
- A notice of completion; and
- An operation and maintenance manual (if deemed necessary by the Department).

The DMF tracks new water systems through persons contacting the DMF, Local/District Health Units, existing PWSs, financial assistance contracts, engineering firms, and other state agencies. The Department has determined that the present process of identifying and contacting proposed systems works well and will continue the process.

The number of new CWSs/NTNCWSs being added to the North Dakota PWS inventory remains small with only a few additions over the last ten years. New developments (subdivisions, trailer courts, industries, etc.) generally occur adjacent to or within the service areas of existing PWSs and are typically consolidated with or provided bulk water service by the existing PWS. The Department does not expect these trends to change.

New water system applications along with plans and specifications were reviewed and approved for McKenzie County Rural Water Distribution System and Mountrail County Rural Water, Inc. in FY03 and FY05, respectively. Construction is underway for McKenzie County Rural Water Phase I. Mountrail County Rural Water has retained engineering services to conduct a feasibility study and complete a preliminary engineering report (PER). In addition to the PER, an environmental report pursuant to the National Environmental Policy Act has been prepared. The two new rural water systems will ultimately serve the rural population in portions of four counties and also provide service to three rural communities. The Department has received eight additional requests for new water system capacity information since 2002.

Existing Systems Program

The North Dakota Existing Water System Capacity Strategy details the steps taken to implement and maintain a capacity program aimed at helping all North Dakota PWSs acquire and maintain capacity. The North Dakota strategy was approved by EPA and implemented prior to August 1, 2000. The SDWA required that States consider each of five programmatic elements in its capacity development. The Department included all five elements in its existing water system capacity document and feels that together they constitute an effective strategy.

- Element A: Methods or criteria used to prioritize systems in need of technical, managerial, and financial assistance;
- Element B: The factors that encourage or impair capacity development;
- Element C: Description of how States will use the authority and resources of the SDWA;
- Element D: Establish a baseline and measure improvements; and
- Element E: Identify stakeholders.

Factors encouraging and impairing capacity remain the same. Enhancements include federal funding, DMF administration, State primacy, and stakeholder involvement. Impairments continue to be small systems, declining rural populations, eroding infrastructure, limited funding, lack of technical ability, owner/operator turnover, reluctance of system owners/managers, and complex SDWA requirements.

The DMF uses pertinent existing programs as a baseline to identify PWSs that lack capacity and are in danger of becoming a compliance problem. The point system developed for the existing capacity strategy utilizes SDWA compliance data, operator certification deficiencies, inspection reports, DWSRF financial audits, and laboratory past due accounts to evaluate capacity. PWSs, that accumulate ten points or more and have the greatest impact on public health, are prioritized beginning with the highest number. PWSs with a history of significant noncompliance (SNC) automatically receive ten points making them candidates for immediate assistance.

Twenty-five CWSs, eight NTNCWSs, and 62 transient non-community water systems (TNCWSs) have received assistance. TNCWSs are non-community water systems serving 25 persons or more at least 60 days per year such as restaurants, campgrounds, motels, golf courses, and highway rest stops. Ninety-one of the 95 PWSs (96%) assisted have returned to compliance. Three of the 25 CWSs, one of eight NTNCWSs, and 19 of 62 TNCWSs have had repeat violations and needed further assistance. The four systems that have not returned to compliance are first-time offenders targeted in FY05. These PWSs are scheduled to return to compliance in November 2005 (two) and January 2006 (two) if no further violations occur. Twenty-five of the 33 CWSs/NTNCWSs assisted did not meet SDWA operator certification requirements. Ten of the 25 requiring certified operators have achieved compliance.

North Dakota's predominant compliance problems continue to be monitoring violations under the Total Coliform Rule (TCR) and TCR maximum contaminant level (MCL) exceedances. Fifty-six PWSs targeted had failure to monitor violations, 33 exceeded the TCR MCL, and five received both violations. Other SDWA rule violations (such as the Lead and Copper, Arsenic, Disinfection/Disinfection By-Products, and Fluoride Rules) that may also affect capacity are addressed through the DMF's Drinking Water, Operator Certification, Facility Inspections, and DWSRF programs.

DWSRF two-percent (2%) set-aside, funds for technical assistance to PWSs serving 10,000 or fewer persons, were used to contract with the Midwest Assistance Program (MAP). MAP, an affiliate of the national Rural Community Assistance Program, provides

the Department completed self-evaluation questionnaires, capacity attribute evaluations, financial assessments, and action plans for those systems targeted for capacity assistance. The MAP contract was renewed for FY05 and runs from January 1, 2005 through December 31, 2005.

Future Follow Up

The Department will continue to measure capacity improvements by using the Quarterly Violations & SNC Summary, the operator certification compliance report, PWS inspection reports, and new system activity. The Department encourages a collaborative effort with stakeholders that promotes safe drinking water, public health, and quality of life.

Stakeholder involvement continues to be a key element in program success. DMF staff and the North Dakota Water and Pollution Control Conference (NDWPCC) offer annual operator training sessions to help PWSs achieve and maintain capacity. The NDWPCC also jointly sponsors an annual conference with the North Dakota Water Environment Association (NDWEA), the North Dakota Chapter of the American Water Works Association (NDAWWA), and the North Dakota Chapter of the American Public Works Association (NDCAPWA). The North Dakota Rural Water Systems Association (NDRWSA) and the North Dakota Environmental Health Association (NDEHA) also provide annual training sessions, conferences, and expositions.

The Department continues to contract with the North Dakota State Plumbing Board, Local/District Health Units, and technical assistance providers such as MAP and NDRWSA. These contracts provide support to the public water supply, facility inspections, arsenic remediation, wellhead protection, capacity development, and operator certification programs.

MAP has submitted concept papers for a capacity assessment follow up project, hazard analysis and critical control point development, standard operating procedure development, and an asset management planning project for consideration in FY06. The Department will be meeting with NDRWSA to review their FY06 proposals in September 2005.

To further promote stakeholder involvement, a copy of this report and the FY05 Capacity Development Program Report will be published in the Official Bulletin, official publication of the NDWPCC. A news release notifying the public of the availability of the FY05 Governor's Report will also be provided to the local and regional news agencies. The Governor's Report along with the New Water System Capacity Assessment Manual and the North Dakota Existing Water System Capacity Strategy are available on the Department web site at: <http://www.health.state.nd.us/MF/>.

Summary

The Department has demonstrated both the new and existing water system capacity strategies are fully functional and continue to meet program goals. All reporting requirements have been met for fiscal years 2003-2005. Control points have triggered eight new inquiries that initiated the approval process. Two new rural water system applications along with plans and specifications were approved. Construction is underway for one system with funding and user enrollment options being pursued for the second. Contracts for technical assistance have been renewed and a proposal for follow up assistance in FY06 is being reviewed.

The vast majority of North Dakota PWSs provide customers safe drinking water and quality service resulting in a strategy aimed at assisting PWSs deemed to lack capacity rather than evaluating capacity for all systems. The Department's priority points system has identified 95 of 519 PWSs requiring assistance since implementing the capacity program. Ninety-one of those systems have returned to compliance. The DMF's practice of contacting and assisting systems prior to them becoming a compliance problem has been successful. The majority of PWSs targeted are TNCWSs where drinking water is a minor part of their overall operation. These systems are reluctant to provide financial information, unaware of the importance of monitoring, misunderstand the complexity of SDWA requirements, and have limited funding for system improvements. The Department feels this will continue to be an ongoing problem that cannot be fully addressed.

The Department will continue to monitor existing systems, while providing consultation, training, and financial recommendations. Implementation of new SDWA regulations that affect capacity will be evaluated as needed. Any modifications resulting from these regulations will be detailed in future reports.